In the Specification

Please amend the originally filed specification as follows:

Please delete paragraph [0036] and replace it with the following amended paragraph:

[0036] Through the Ethernet port, the instrument 100 can be connected directly to the Internet or another computer network or a network of the inventive performance instruments. With browser and or email software files or applications can be downloaded from the network for quick use. Additionally, files can be uploaded for sharing or for safekeeping. These files could include music files, performance files, system configurations etc. In this way a performer can configure his instrument at home, create a show say Los Angeles, upload the configuration and show files using an internet connection, fly to London, use another of the inventive performance instruments, download the files from the internet and be ready to perform. If the performer wants assistance from an associate back in Los Angeles, an email can be sent with instructions, the associate can create what is required and email it to the performer in London. This could work just as well across town rather than over continents.

Please delete paragraph [0039] and replace it with the following amended paragraph:

[0039] FIG. 16 illustrates a software control interface for a host application running on the present invention. This interface has features not found in other host control panels. For example, a panic control 350 and a list ~~control 252~~ control 352. The panic control 350 allows the user to turn all notes off. The list control toggles between a single instrument or channel in window 354 and the list of all instruments and channels. In an alternative embodiment it can toggle to all active instruments and channels in window 354. Below the control bar 356 in FIG. 16, there are two rows 357 the first row 358 is an output channel and the second row 360 represents a single instrument. In operation, there would typically be multiple channel bars--one for each output channel and multiple instrument bars for multiple inputs and VST "voices" or instruments. The control surfaces of the control bar 356 and the instrument and channel rows 360 and 358, respectively, are large to accommodate finger control of these functionalities when used in conjunction with a touch screen HID (human interface device). Although not shown in the figures, the present system is able to determine if a touch screen is installed or connected to the instrument and automatically configure the control interface with larger control surfaces.

However, in the preferred embodiment the user is provided with the option of configuring the control interface to me more suitable for use with a pointer device (i.e. smaller control surfaces to fit more channels/instruments on the screen at once). In the preferred embodiment, the relative size of the control surfaces is optimized dependant on the application used and the HID interfaces plugged into the system and the user is capable of scaleably adjusting the size of the control interface control surface to suit her needs.

Please delete paragraph [0044] and replace it with the following amended paragraph:

[0044] FIG. 19 illustrates an alternative embodiment of an audio input/output module 500. The audio inputs and outputs are supported by commercially available audio PCI cards and other circuitry well known in the audio electrical arts. The embodiment shown has the following inputs/outputs: 8 analog inputs 502 and 8 analog outputs 504 in the form of 1/4 inch sockets for receiving 1/4 inch headphone plugs. Two balanced analog inputs 506 in the form of female XLR connectors. These inputs are selectable between line level and microphone level. Two balanced analog outputs in the form of male XLR connectors 508; a midi port 510; two identical midi out ports 512; a midi Thru port 514; a foot control 1/4 inch headphone socket ~~input 524~~ input 516; 1/4 inch headphone jack out socket 518; a digital word ~~clock 516~~ clock 524; a digital word clock ~~out 518~~ out 525; four digital channels (two in, two out, two coaxial with BNC connections and two optical) 520 and two RCA jack ports 522. In one embodiment of the invention the audio input and output are supported by up to 24 bit resolution at 96 Khz which is higher than the standard CD quality resolution which is typically 16 bit resolution at 44 Khz.

Please delete paragraph [0045] and replace it with the following amended paragraph:

[0045] FIG. 20 illustrates an interchangeable universal programmable control engine and USB communication board 550. This programmable control engine board 550 in combination with the control surface circuit board 552 comprises the electronic components of the control module 554. In one embodiment, these boards are directly connected to each other via a socket connector (not shown) male on one board female on the other. In alternative embodiments the data bus 558 is connected by cabling. In one embodiment of the invention the control surface circuit board 552 contains circuitry or components such as an EE PROM 555 that contain identification keys that is communicated with the control engine board 550. The control engine

board 550 takes the key information and configures itself to behave in accordance with the identity of the control surface board 552. In alternative embodiments the [[board]] control engine board 550 is configured by the main system in accordance with the identity stored information communicated by the control surface board 552.

Please delete paragraphs [0047] – [0049] and replace them with the following amended paragraphs:

[0047] The control engine [[chip]] board 550 also includes a PSOC 562 (programmable system on chip processor) also connected to the control engine bus 558. The PSOC chip includes a combination of a number of logic blocks 564 and analog blocks 566 and supporting components like RAM and ROM (not shown). The PSOC logic blocks and analog blocks can be configured to perform a wide variety of tasks according to the manufacturers specifications (the PSOC chosen by the applicants is available from Cyprus semiconductor). For example, some of the logic and analog blocks can be used as A/D converters (analog to digital). Other blocks can be used as D/A converters (digital to analog). The PSOC 562 can also be configured as: a UART or IRDA modem for digital communications; a band pass filter, a low pass filter; as additional memory for the system; an LCD display driver; a multiplexer to reuse configurations for multiple tasks; a random number generator; measure the operating temperature of the chip, a timer or clock; a DTMF (dual tone multifrequency or "touch tone") decoder; and many other functional configurations. A combination of the control engine CPU 556, the CPLD scaler 560, and the flexibility of the PSOC 562 allow the control engine 550 to convert the control surface boards into USB devices that can ~~communication~~ communicate with the CPU of the instrument 100. The control engine 550 may communicate via a USB data bus 559 connected to the PSOC 562 in some embodiments. In other embodiments, optional USB circuitry 561, which is connected to the data bus 558, provides a USB connection 563 to the instrument 100. The advantage of having a separate programmable control module USB control engine board is that the board can be universal to all the control modules and makes it a great deal easier to develop new control modules to exchange with other control modules.

[0048] FIG. 20 also illustrates another unique feature of the control modules. The control surface board 552 contains circuitry 555 which includes a key that is used by the USB control engine 550 that is used by the control engine to configure itself so that the control surface

board together with the universal interchangeable control engine board 550 have a behavioral personality consistent with the control surface board 552. For example if the control surface board 552 is for an array of encoders the control engine board 550 must act differently on the inputs than if the control surface board 552 is for an array of sliders. If the combined on board memory of the control surface board 552 and the control engine board 550 is sufficiently large to hold driver software the control module 554 could operate as a stand alone USB peripheral device.

[0049] Depending on the design of the control engine board 550 more processing power may be necessary than the control engine board can handle. Since the Control surface board 552 is connected to the control engine board 550 on the same data bus 558 as the bus[[s]] that handles communication between the control engine CPU 556 and the CPLD 560 and PSOC 562, the control surface board may include additional CPLD's and/or PSOCs to handle more of the processing necessary for the control module 554 to behave like a USB peripheral device.